

REMARKS

Reconsideration of the present application is respectfully requested. Claims 1-35 were originally presented. Claims 1, 3, 16, 17, 24, 27, and 28 are herein amended. Therefore, claims 1-35 remain pending, with claims 1, 16, and 24 being in independent form.

Applicant would like to thank the Examiner for the in-person interview courteously granted by the Examiner on June 7, 2007. In the interview, Applicant's representative, Kameron Kelly, discussed with the Examiner the specifics of the claimed invention and the deficiencies of the cited prior art in relation to the Office Action mailed May 7, 2007. Pursuant to the Examiner's request, Applicant will reiterate and expand upon the arguments made in the interview in more detail below. In particular, Applicant will discuss the failure of the cited prior art reference to disclose all of the limitations of the claimed invention.

In the Office Action of May 7, 2007, the Examiner rejected claim 28 under 35 U.S.C. §112, first paragraph as failing to comply with the written description requirement. The Examiner asserted that after reviewing the drawings and the specification, the Examiner was still uncertain "as to how the uncured grout is to remain in place as a result of lateral access." (Office Action, page 3, lines 2-3). Applicant wishes to direct the Examiner's attention to page 9, lines 1-14 of the specification. This portion of the specification provides that "[w]hen a curable grout is used as the mechanical stop 60, separate supporting means should be used to support the building structure 20 during the time period required for the grout to cure/solidify. When a jack, or several jacks, are used to level the structure, the jack(s) can be left in place until the grout is sufficiently cured. After curing, the external supporting means (e.g., jacks) can be removed so that the structure 20 is supported by the adjusted piers 22." The specification makes clear that the separate supporting means prevent a compressive load from deforming the uncured grout (*i.e.*, the separate supporting means prevent collapsing the internal chamber before the grout cures). By preventing this deformation, the separate supporting means permit the grout to cure within the chamber. Further, it is within the knowledge of those having ordinary skill in the art to select a sufficiently viscous curable grout so as to keep the grout in place. Skilled artisans routinely make this selection, such as, for example, when applying grout at any angle in which gravity would tend to pull the grout downward. In light of the foregoing, Applicant respectfully requests reconsideration and withdrawal of the rejection of claim 28.

In the Office Action, the Examiner rejected independent claim 1 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,484,469 to Drake (hereinafter, Drake). Applicant submits that Drake fails to disclose each claim limitation recited in amended claim 1, and therefore fails to anticipate claim 1.

Independent claim 1 has been amended to specify that the internal chamber defined in the lower support member is “configured to receive the upper support member.” In the Office Action, the Examiner asserts that Drake discloses a lower support member that “has an opening (120) for lateral access to the chamber from outside the lower support member.” (Office Action, page 3, lines 14-16). Applicant would like to direct the Examiner’s attention to page 7, lines 6-8 of the specification, where Applicant defines the term “lateral access” as “physical access to a certain region from the side of that region, as opposed to access from the top or bottom of the region.” The opening (120) of Drake’s column assembly does not provide lateral access, as defined by Applicant’s specification, to an internal chamber configured to receive an upper support member. Rather, the opening (120) of Drake’s column assembly would only provide access to the internal chamber from the bottom of the internal chamber, which would clearly not be lateral access as defined in the specification and recited in claim 1.

In addition, Applicant has amended claim 1 to specify that the opening providing lateral access to the internal chamber has “a height that is at least 50% of the maximum height of the upper support member.” In addition to not provided lateral access to an internal chamber, the opening (120) of Drake’s column assembly clearly does not have a height that is at least 50% of the maximum height of the upper support member. Therefore, since Drake fails to disclose all of the limitations of claim 1, Applicant submits that Drake does not anticipate claim 1.

Furthermore, it would not be obvious to modify Drake’s column assembly to arrive at the invention defined in claim 1. In order to modify Drake’s column to include (1) an opening providing lateral access to an internal chamber configured to receive an upper support member and (2) an opening having a height that is at least 50% of the height of the upper support member, the opening of Drake would have to be moved up to the sidewall of Drake’s column assembly and substantially enlarged. However, modifying Drake’s column assembly in this manner would significantly weaken the column assembly because the tube member (102) would have a large opening therein and could not be strengthened at that location by wrapping the wire rope (124a) or ring members (124b) around the tube member (102). The whole purpose of

Drake is to provide a light weight, thin-walled column assembly that resists buckling by converting external compressive forces to tangential stresses within a tubular wall of the column that has been reinforced with wire rope or ring members. Pursuant to the MPEP, if a “proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious.” (MPEP § 2143.01 (VI)). Accordingly, it would not be obvious to modify the column assembly of Drake to arrive at the invention of claim 1.

In the Office Action, the Examiner rejected independent claim 16 under 35 U.S.C. §103(a) as being unpatentable over Drake in view of U.S Patent No. 6,324,795 to Stiles et al. (hereinafter, Stiles). Applicant submits that amended claim 16 is not obvious over Drake in view of Stiles. Similar to claim 1, claim 16 now recites a “lower support member defining an internal chamber for receiving the upper support member” and a “lower support member defining an opening for providing lateral access to the internal chamber from outside the lower support member” where the opening has “a height that is at least 50% of the maximum height of the upper support member.” As discussed above, these limitations are not disclosed by Drake. Further, Stiles does not cure the deficiencies of Drake with regard to these limitations. Therefore, for the reasons discussed above with respect to independent claim 1, Applicant submits that amended independent claim 16 is novel and unobvious over the prior art of record, including Drake in view of Stiles.

In the Office Action, the Examiner rejected independent claim 24 under 35 U.S.C. §103(a) as being unpatentable over Drake in view of U.S Patent No. 6,748,717 to Sumner (hereinafter, Sumner). Applicants have amended claim 24 to recite that the “stop member” is “at least one permanently rigid structure and/or a curable grout that transforms from a non-rigid phase to a rigid phase during curing.” Both Drake and Sumner fail to disclose utilizing a permanently rigid body and/or a curable grout as a stop member. Furthermore, it would not be obvious to modify Drake to utilize a filler material that is or will become rigid. As previously stated, the principle of operation of Drake is to prevent buckling failure in a column by converting a compressive load into tangential stress within the walls of the column. To achieve this principle, Drake discloses a number of filler materials that are operable to convert a compressive load into tangential stress within the walls of the column. While the array of potential filler materials is broad, Drake teaches that a selected filler material must have “liquid,

fluid-like properties." (Drake, col. 5, line 42). Modifying the filler material of Drake to consist of a permanently rigid structure and/or a curable grout would prevent the conversion of a compressive force exerted on the upper support member into tangential stress within the tubular wall of the column. Accordingly, modifying the filler material of Drake to arrive at Applicant's invention of claim 24 would frustrate the principle of operation taught by Drake. In light of the foregoing, Applicant submits that claim 24 is both novel and unobvious over the prior art of record, including of Drake in view of Sumner.

In light of the foregoing, Applicant submits that independent claims 1, 16, and 24 should now be in condition for allowance. Additionally, dependent claims 2-15, 17-23, and 25-35, which depend from claims 1, 16, and 24, all recite additional patentable features and should also be in condition for allowance because they depend from patentable independent claims.

Applicant submits that the present application should now be in condition for allowance and such allowance is respectfully requested. Should the Examiner have any questions, please contact the undersigned at (800) 445-3460. The Commissioner is hereby authorized to charge any additional fees associated with this communication or credit any overpayment to Deposit Account No. 19-0522.

Respectfully submitted,

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